ISS Research Accommodations Status

15 August 2003 (Data through 31 July 2003) *[POC: Lesa Roe/OZ]*

Research Resources

METRIC TYPE	STATUS	ORGANIZATION	ACCOUNTABLE POC	UPDATED
Manager's Lead Performance Indicator	R	OZ	Roe	8/15/03

DESCRIPTOR

- The Research Resources Indicator shows the Program's performance in accommodating the required Research Crew Time and Research Supplies in Middeck, as well as the Program's performance in achieving the minimum commitments for Research Crew Time and Research Supplies in Middeck.
- Note: The overall "Research Resources" status is determined by the status of the most constraining of the two supporting resources: research crew time and research supplies in middeck (and Soyuz/Progress).

STATUS DETAIL

- An interim ISS research plan due to the Columbia STS-107 accident has been baselined.
- U.S. Research Crew Time: Green
  - G Increment 6: Actual Crew Time greater than requirement and commitment.
  - G Increment 7: 121% Required Crew Time accommodated.
  - G Increment 8: 129% Required Crew Time accommodated.

  Increments /ULF1, /12A.1, and /15A: Both Requirements and Accommodations under review.
- Research Supplies in Middeck *(and Soyuz/Progress)*: Red
  - R 6S: 10% Required Upmass launched.
  - R 11P: 0% Required Upmass launched.
  - R 12P: 56% Required Upmass accommodated.
  - G 7S: 100% Required Upmass allocated.
  - R 7S: No Upmass accommodated yet.
  - G 13P: 100kg Upmass allocated.
  - R 13P: No Upmass accommodated yet.
  - G 14P & 15P: 100kg Upmass allocated on each.
  - R 14P & 15P: No Upmass accommodated yet.
  - G 8S: 20 kg Upmass allocated.
  - R 8S: No Upmass accommodated yet.

  Increments /ULF1, /12A.1, and /15A: Both Requirements and Accommodations under review.

PERFORMANCE INDICATOR METRICS

Metrics / Performance Information

U.S. Research Crew Time, Compared to the 12-Month Plan

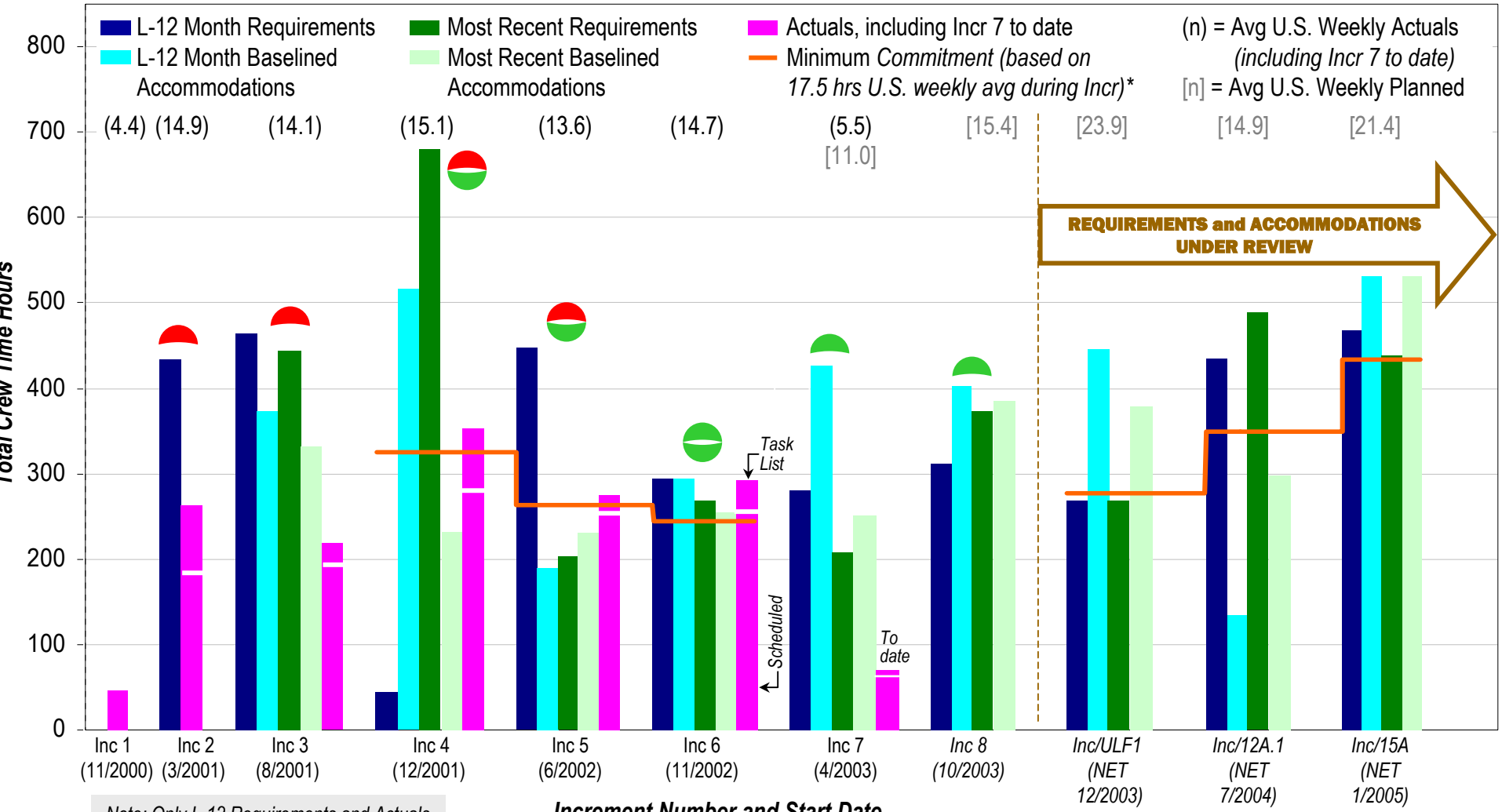
15 August 2003 (Data through 31 July 2003) *[POC: Lesa Roe/OZ]*

Status: Green

Research Requirements Status: Green
Minimum ISS Commitment Status: Green

- G *Increment 6: Actual Crew Time greater than requirement and commitment.*
- G *Increment 7: 121% Required Crew Time accommodated.*
- G *Increment 8: 129% Required Crew Time accommodated.*

Note: "L-12" values for Increments 7 and 8 are actually determined closer than 12 months before flight.



Note: Only L-12 Requirements and Actuals

**Minimum commitment for all Partner research = 20 hours per week*

Research Supplies in Middeck (and Soyuz/Progress), Compared to the 12-Month Plan

15 August 2003 (Data through 31 July 2003) *[POC: Lesa Roe/OZ]*

Status: Red

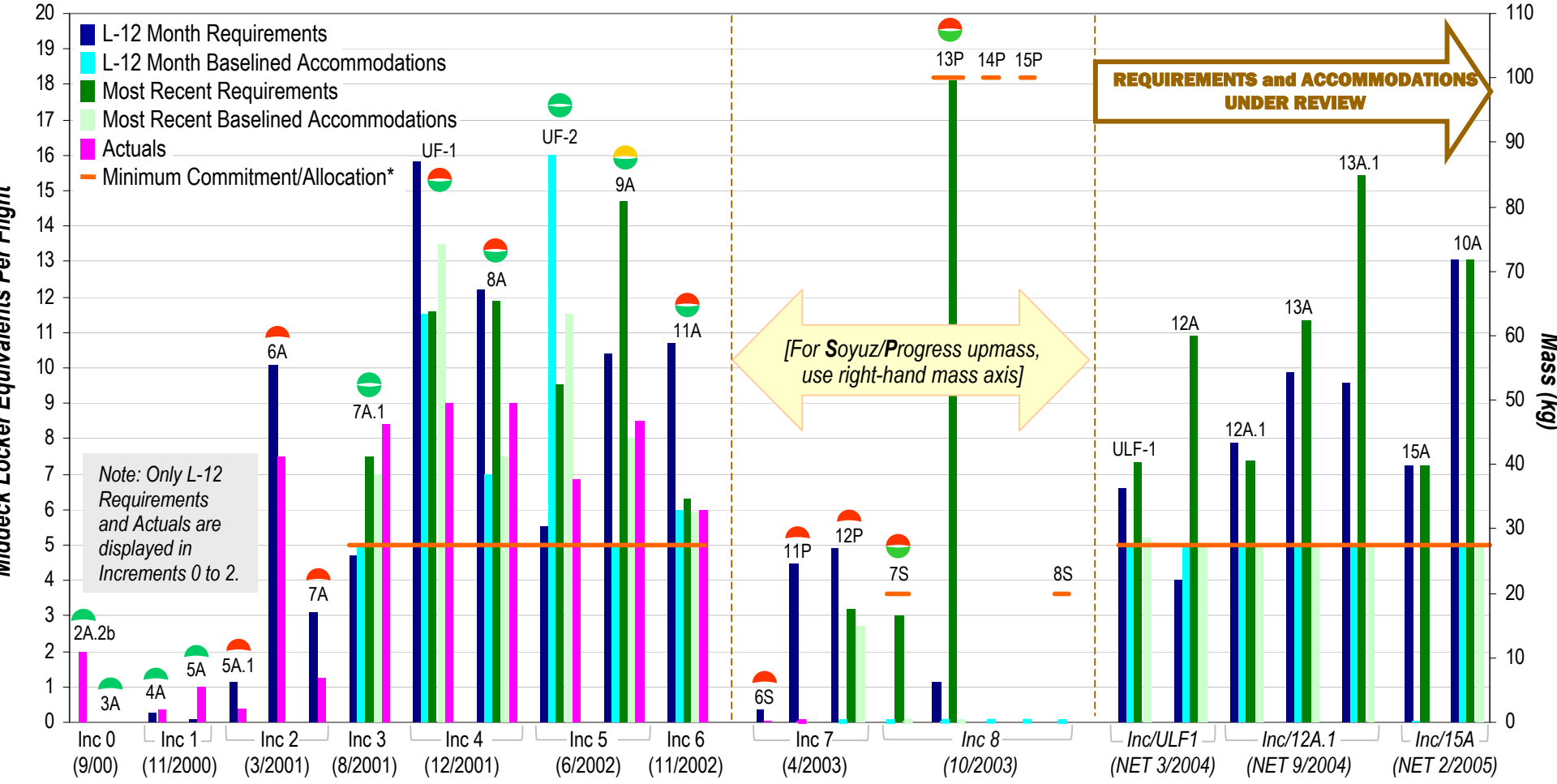
Research Requirements Status: Red

Minimum ISS Middeck Commitment Status: Green

Program Manager Mass Allocation* Status: Green

- R *6S: 10% Required Upmass launched.*
- R *11P: 0% Required Upmass launched.*
- R *12P: 56% Required Upmass accommodated.*
- G *7S: 100% Required Upmass allocated.*
- R *7S: No Upmass accommodated yet.*
- G *13P: 100kg Upmass allocated.*
- R *13P: No Upmass accommodated yet.*
- G *14P & 15P: 100kg Upmass allocated on each.*
- R *14P & 15P: No Upmass accommodated yet.*
- G *8S: 20kg Upmass allocated.*
- R *8S: No Upmass accommodated yet.*

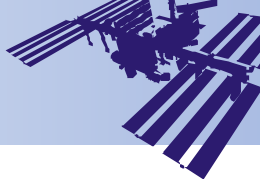
Note: "L-12" mass values for Soyuz/Progress are actually determined closer than 12 months before flight.



* During Shuttle stand-down period, Program Manager Mass

U.S. Research Crew Time: *Definitions, Sources, and Status Levels*

5 August 2003 (Data through 31 July 2003) ***[POC: Lesa Roe/OZ]***



U.S. Research Crew Time*:*

Total per Increment (hrs) and Weekly Average (hrs/wk): The time that the ISS crew performs research tasks for all U.S. and U.S.-sponsored investigations, including time both within and outside of the crews' schedulable work hours. Weekly times are the total Increment crew time divided by the number of Work Weeks.

Work Week: The number of 5-day Work Weeks in an Increment, excluding joint operations (Shuttle and Soyuz) and holidays.

-12 Month Requirement: Required research crew time defined 12 months prior to the start of the Increment.

Source: Increments 0 through 6: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 4.2-1, Crew Time Allocations; Increments 7 and higher: Increment Definition and Requirements Document for Planning Period X, Annex 5, Increment X Payload Tactical Plan, Table 9.0-1 Increment X United States On-Orbit Utilization Complement.

-12 Month Baselined Accommodation: Amount of crew time accommodated to research 12 months prior to the start of the Increment.

Source: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 4.2-1, Crew Time Allocations.

Most Recent Requirement: Required research crew time most recently published prior to the start of the Increment

Source: Increments 0 through 6: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 4.2-1, Crew Time Allocations; Increments 7 and higher: Increment Definition and Requirements Document for Planning Period X, Annex 5, Increment X Payload Tactical Plan, Table 9.0-1Increment X United States On-Orbit Utilization Complement.

Most Recent Baselined Accommodation: Amount of crew time accommodated to research most recently published prior to the start of the Increment.

Source: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 4.2-1, Crew Time Allocations; if available, the On Orbit Summary most recently published prior to the start of the Increment, including the Basic Payload, Final Payload, Final Integrated, and Overview versions.

Actuals: Amount of crew time actually devoted to research during the entire Increment, including both scheduled time and time spent executing research activities on the Task List.

Source: Summary Crew Tracking Matrix, provided weekly by the Payload Operations Integration Center at NASA/MSFC.

U.S. Research Crew Time: *Definitions, Sources, and Status Levels*

5 August 2003 (Data through 31 July 2003) ***[POC: Lesa Roe/OZ]***

U.S. Research Crew Time (continued)

Average Weekly Actuals: Actual Increment crew time divided by the actual number of Work Weeks in the Increment.

Source: Summary Crew Tracking Matrix, provided weekly by the Payload Operations Integration Center at NASA/MSFC.

Average Weekly Planned: Planned Increment crew time, as given by the Most Recent Baselined Accommodations, divided by the most recently planned number of Work Weeks in the Increment.

Source: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 4.2-1, Crew Time Allocations.

Minimum Commitment: The minimum value of research crew time committed by the ISS Program Manager. Computed by multiplying the minimum weekly average commitment (17.5 hours per week for U.S. and U.S.-sponsored investigations) by the most recently planned number of Work Weeks in the Increment.

Source: Hours: Generic Ground Rules and Constraints; Increment Duration: Increment Definition and Requirements Document for Planning Period X (most recently published prior to start of Increment), Increment X Summary.

Status Level Definitions

Research Requirements Status

- Most recent accommodations (or actuals) are:

Green: At least 90% of L-12-month requirement.

Yellow: 80-90% of L-12-month requirement.

Red: Less than 80% of L-12-month requirement.

Minimum ISS Commitment Status

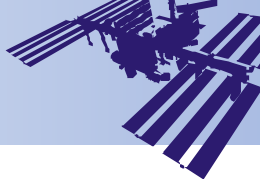
- Most recent accommodations (or actuals) are:

Green: At least 100% of the minimum commitment.

Yellow: 90-100% of the minimum commitment.

Red: Less than 90% of the minimum commitment.

U.S. Research Supplies in Middeck (and Soyuz/Progress):
Definitions, Sources, and Status Levels
5 August 2003 (Data through 31 July 2003) ***[POC: Lesa Roe/OZ]***



Research Supplies in Middeck

The number of research middeck lockers and other research supplies and equipment launched in the middeck on each shuttle flight to the ISS. Measured in middeck locker equivalent (MLEs), I.e., the number of volumes equal to the volume of a middeck locker. The middeck is used primarily to transport perishable research samples and equipment to and from the ISS.

L-12 Month Requirement: Required middeck volume defined 12 months prior to the planned launch of the first Shuttle flight in an Increment.

Source: Increments 0 through 4: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 5.0-2 Ascent/Descent Utilization Manifest Summary; Increments 5 and higher: Increment Definition and Requirements Document for Planning Period X, Annex 5, Payload Tactical Plan Manifest, PMIT Ascent Payload Summary.

L-12 Month Baselined Accommodation: Volume of the number of middeck lockers (in MLEs) accommodated to research 12 months prior to the planned launch of the first Shuttle flight in an Increment.

Source: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 5.0-1, Ascent/Descent Accommodation Summary.

Most Recent Requirement: Required middeck volume most recently published prior to the planned launch of the first Shuttle flight in an Increment.

Source: Increments 0 through 4: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 5.0-2 Ascent/Descent Utilization Manifest Summary; Increments 5 and higher: Increment Definition and Requirements Document for Planning Period X, Annex 5, Payload Tactical Plan Manifest, PMIT Ascent Payload Summary.

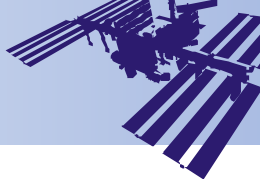
Most Recent Baselined Accommodation: Volume of middecks accommodated to research most recently published prior to the planned launch of the first Shuttle flight in an Increment.

Source: Increment Definition and Requirements Document for Planning Period X, Main Volume, Table 5.0-1, Ascent/Descent Accommodation Summary.

Actuals: Volume of middecks containing research utilization equipment actually launched on each Shuttle flight during an Increment.

Source: Increments 0 through 4: Increment Definition and Requirements Document for Planning Period X, Annex 5, Payload Tactical Plan Manifest Summary, Ascent Summary; Increments 5 and higher: As Flown Rack Layout from the Crew Compartment website.

U.S. Research Supplies in Middeck (and Soyuz/Progress):
Definitions, Sources, and Status Levels
5 August 2003 (Data through 31 July 2003) ***[POC: Lesa Roe/OZ]***



Minimum ISS Middeck Commitment: The minimum value of research supply volume in the Middeck committed by the ISS Program Manager.

Program Manager Mass Allocation: During the Shuttle down-time following the Columbia STS-107 accident, the ISS Program Manager is allocating a certain amount of upmass for research on the Soyuz and Progress flights. This allocation is made prior to joint approval with RSA.

Research Supplies in Soyuz and Progress: During the Shuttle down-time following the Columbia STS-107 accident, all research supplies were launched on Soyuz or Progress vehicles. Requirements, allocations, accommodations, and actuals are shown.

Status Level Definitions

Research Requirements Status =
Most Recent Accommodation or Actual ÷ L-12-month Requirement

- Most recent accommodations (or actuals) are:

Green: At least 90% of L-12-month requirement.

Yellow: 80-90% of L-12-month requirement.

Red: Less than 80% of L-12-month requirement.

Minimum ISS Middeck Commitment Status =
Most Recent Accommodation or Actual ÷ Minimum Commitment

- Most recent accommodations (or actuals) are:

Green: At least 100% of the minimum commitment.

Yellow: 90-100% of the minimum commitment.

Red: Less than 90% of the minimum commitment.

Program Manager Mass Allocation Status =
L-12-month Requirement or Actual ÷ Allocation

- L-12-month Requirements (or actuals) are:

Green: At least 90% of Program Manager Mass Allocation.

Yellow: 80-90% of Program Manager Mass Allocation.

Red: Less than 80% of Program Manager Mass Allocation.